

Amendments to the Claims:

Cancel Claims 1 – 16

17. (Original) A basic hydrogen peroxide (BHP) recycling system comprising  
a chemical oxygen-iodine laser (COIL);  
a separating apparatus which receives spent BHP from the COIL and separates the  
spent BHP into a purified alkali hydroxide /  $\text{H}_2\text{O}_2$  stream, which is returned to the COIL, and an  
aqueous alkali chloride recycle stream having residual alkali hydroxide and  $\text{H}_2\text{O}_2$ ;  
a chloralkali cell;  
a reactor which receives the alkali chloride recycle stream from the separating  
apparatus, a depleted anolyte stream from the chloralkali cell, a first alkali hydroxide stream  
from the chloralkali cell, and a first  $\text{Cl}_2$  gas stream from the chloralkali cell, and which evolves a  
treated alkali chloride stream substantially free of alkali hydroxide and  $\text{H}_2\text{O}_2$  which is supplied to  
the chloralkali cell and an oxygen off gas stream; and  
a peroxide generator which receives a second alkali hydroxide stream from the  
chloralkali cell and produces a regenerated stream of BHP, which is supplied to the COIL,  
wherein a second  $\text{Cl}_2$  gas stream is supplied from the chloralkali cell to the COIL.

18. (Original) The system of claim 17, wherein the reactor is a packed column  
reactor having inlets in the upper region of the column for receiving the alkali chloride recycle  
stream, the depleted anolyte stream, and the first alkali hydroxide stream; an outlet in the upper  
region of the column for offgassing of oxygen; an inlet in the lower region of the column for  
receiving the first  $\text{Cl}_2$  gas stream; and an outlet in the lower region of the column for the  
evolution of the treated alkali chloride stream.